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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

TM02/0828

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VITAL P	
ART UNIT	PAPER NUMBER

2186
DATE MAILED:

08/28/01

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SM

Office Action Summary

Application No.

09/224,637

Applicant(s)

Cakeljic et al.

Examiner

Pierre Vital

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Jun 4, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-25 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-25 is/are rejected.

7) ☒ Claim(s) 19, 21, and 22 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 11

20) ☐ Other: _____

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DETAILED ACTION

Request for Continued Examination

1. The request filed on June 4, 2001 for a Request for Continued Examination (RCE) under 37 C.F.R. 1.114 based on parent Application No. 09/224,637 is acceptable and a RCE has been established. An action on the RCE follows.

Oath/Declaration

2. The objection to the Oath/Declaration has been withdrawn due to the Amendment filed May 4, 2001.

Claim Objections

3. Claims 21 and 22 are objected to under 37 C.F.R. 1.75(c) as being in improper form because a multiple dependent claim must refer to a preceding claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

4. Claim 19 is objected to because of the following informalities:

In claim 19, line 2, replace "a plurality of a primary storage elements" with --a plurality of primary storage elements--. Appropriate correction is required.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 4, 6-8, 10-12, 14 and 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Huai et al. (US5,673,381).

As per claim 1, Huai discloses a host domain including a host computer [col.1, lines 25-27]; a storage domain, coupled to the host domain, the storage domain comprising: a plurality of primary storage devices [col. 1, lines 25-32]; a secondary storage device [abstract, lines 4-6]; a switched network coupled to the plurality of primary storage devices and to the secondary storage device to permit one of the primary storage devices to access the secondary storage device through the switched network [see abstract, lines 4-17].

As per claims 6 and 11, Huai discloses a plurality of host computers [col. 1, lines 25-27]; a plurality of primary storage devices to receive and store data in the devices [col. 1, lines 25-32]; each primary storage device being associated with at least one of the host computers [col. 1, lines 29-32]; a secondary storage device to receive and store data in the device coupled to a plurality of the primary storage devices [abstract, lines 4-17], the secondary storage device being configured to receive backup data from each of the host computers [abstract, lines 4-17].

As per claims 3 and 12, the use of cached disk array is well known in the state of the art.

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As per claims 4 and 14, Huai discloses a secondary storage device including a plurality of ports coupled to the network to send and receive data on the network in parallel [col. 3, lines 4-25].

As per claims 7, 16 and 19, Huai discloses the claimed invention as detailed above in the previous paragraphs. Huai further discloses transferring a first logical object from one of the primary storage devices directly to the second storage device directly over a first connection [col. 8, lines 1-12].

As per claims 8, 17 and 20, Huai discloses transferring a second logical object from one of the primary storage devices directly to the second storage device directly over a second connection [col. 8, lines 1-15].

As per claims 10 and 18, the use of a tape library unit is well known in the state of the art.

As per claim 23, Huai discloses establishing a path through a network [col. 8, lines 9-12].

As per claim 24, the use of a tape library unit is well known in the state of the art.

Claim 21 is rejected as per claims 4 and 14.

Claim 22 is rejected as per claim 11.

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huai et al. (US5,673,381) and Kullick et al. (US5,751,997).

As per claim 2, Huai discloses the claimed invention as detailed above in the previous paragraphs. However, Huai does not specifically teach a primary storage device coupled directly to a secondary storage device as recited in the claim.

Kullick discloses a primary storage device coupled directly to a secondary storage device [Fig. 1, elements 14 and 16].

It would have been obvious to one of ordinary skill in the art, having the teaching of Huai and Kullick before him at the time the invention was made to modify the system of Huai to include a primary storage device coupled directly to a secondary storage device as taught by Kullick because it would have improved system performance by minimizing the time taken to perform an individual backup as taught by Kullick.

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9. Claims 5, 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huai et al. (US5,673,381).

As per claims 5, 15 and 25, Huai fails to teach a secondary storage device comprising data movers as recited in the claims. Official Notice is taken that both the concept and the advantages of providing for storage devices which include data movers are well known and expected in the art.

It would have been obvious to one of ordinary skill in the art to have included the data movers in Huai as these data movers are known to provide a means for communication between the backup server and the network.

10. Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huai et al. (US5,673,381) and Kopper (US5,535,381).

As per claims 9 and 13, Huai discloses the claimed invention as detailed above in the previous paragraphs. However, Huai does not specifically teach means for forming an abstract block set from a logical object stored in one of the primary storage devices as recited in the claims.

Kopper discloses means for forming an abstract block set from a logical object stored in one of the primary storage devices [col.2, line 54 - col. 3, line 54].

It would have been obvious to one of ordinary skill in the art, having the teaching of Huai and before him at the time the invention was made to modify the system of Huai to include a

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primary storage device coupled directly to a secondary storage device as taught by Kopper because it would have improved data management by mapping the file system into corresponding logical addresses on a logical disk as taught by Kullick.

Response to Arguments

11. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach storage devices, switched network, tape library and cache disk array.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre M. Vital whose telephone number is (703) 306-5839. The examiner can normally be reached on Monday to Friday 8:30 A.M. to 6:00 P.M., alternate Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim, can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.


MK/pmv

August 23, 2001


MATTHEW KIM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100